

Notice of Allowability

Application No.

09/933,805

Examiner

Hetul Patel

Applicant(s)

NINOMIYA ET AL.

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/24/2006.
2. ☒ The allowed claim(s) is/are 21,23,24,26,27,29-32,34-39 and 41-55; renumbered as 1-30, respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/819,625.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Response to Amendment

1. This action is responsive to communication filed on April 24, 2006. This amendment has been entered and carefully considered. Claims 21, 24, 27, 37, 43 and 51 are amended. Claims 21, 23-24, 26-27, 29-32, 34-39 and 41-55 are pending in this application.
2. Claims 21, 23-24, 26-27, 29-32, 34-39 and 41-55 are allowed and renumbered as 1-30, respectively.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with Carl Brundidge (Reg. No. 29,621) on 06/12/2006.
5. The application has been amended as follows:
 - Replace lines 15-18 of claim 27 with following phrase:

“host adaptors, being coupled to a host device, receives the data of the CKD format from said host device, into data of a fixed block architecture (FBA) format suitable for said storage devices before

being stored in said at least one cache memory unit, and sending
the converted data of the FBA format to”

- Replace lines 15-18 of claim 37 with following phrase:

“host adaptors, being coupled to a host device, receives the data
of the CKD format from the host device, into data of a fixed block
architecture (FBA) format suitable for said storage devices before
being stored in said at least one cache memory unit, and sending
the converted data of the FBA format to”

- Replace lines 14-17 of claim 51 with following phrase:

“host adaptors, being coupled to a host device, receives the data
of the CKD format from said at least one host device, into data of
a fixed block architecture (FBA) format suitable for said storage
devices before being stored in said at least one cache memory
unit, and”

REASONS FOR ALLOWANCE

6. The following is an examiner's statement of reasons for allowance:

The prior arts of record do not teach nor suggest, either alone or in combination,
all the limitations of the amended claims of the current invention (claims 21, 24, 27, 37,
43 and 51); particularly converting data of CKD format received from the host adaptors
into data of FBA format suitable for storage devices before being stored in the cache

memory unit, and then sending the converted data (i.e. in the FBA format) to the cache memory unit.

Claims 23, 26, 29-32, 34-36, 38-39, 41-42, 44-50 and 52-55 further limit the allowable independent claims. These claims are therefore allowable for the same reason as set forth supra.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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